SAR 12743

We Claim:

1. A method of forming transmission lines and openings for buried passive components in green tapes comprising

embossing a channel or opening in a green tape using an embossing tool having a desired pattern thereon using heat and pressure sufficient to transfer the pattern from the embossing tool to the green tape, and

screen printing a suitable ink into the channels or openings to a desired thickness.

2. A method according to claim 1 wherein embossed transmission line channels are filled with a conductive ink.

3. A method according to claim 2 wherein the conductive ink includes silver powder and an organic vehicle to provide a viscosity of about 30 poise.

4. A method according to claim 1 wherein embossed openings are made in a green tape and screen printed to fill the opening using a resistor ink.

5. A method according to claim 1 wherein embossed openings are made in a green tape and screen printed to fill the opening using a capacitor ink.

6. A method according to claim 5 wherein said capacitor ink includes lead magnesium niobate.

7. A method according to claim 5 wherein said capacitor ink includes barium titanate.

8. A method according to claim 4 wherein said resistor ink

includes ruthenium oxide.

9. A method of making buried passive components comprising

a) embossing an opening of a desired size in a green tape;

b) filling said opening by screen printing an ink including said component material;

c) burying said green tape in a green tape stack;

d) aligning and laminating said stack onto a support board coated with a low melt temperature glass; and

e) firing said stack to remove organic materials and to densify the glass of the green tape.

10. A method according to claim 9 wherein said support board is of metal.

11. A method according to claim 1 wherein a pattern of embossed openings are made in a green tape and screen printed to fill the pattern with a conductive ink to form inductors of high Q.

12. A method according to claim 1 where a pattern of embossed openings are made in a green tape and filled with conductive ink to form filters of high Q.